

largest values of the greatest daily ranges were: Miles City, 51; Carson City, 48; Pueblo, 47; Havre, Williston, Bismarck, Sioux City, and Northfield, 46. The smallest values were: Tatoosh Island, 12; Point Reyes Light, Nantucket, and Block Island, 14; Key West, 15; East Clallam, 16.

Among the *extreme monthly ranges* the largest were: Carson City, 72; Omaha and Lincoln, 70; Sioux City, 65; Columbus, Mo., 64; Moorhead, Huron, and Pueblo, 63; Des Moines, Springfield, Fort Smith, and Nashville, 62; Dodge City, 61; Rapid City and Springfield, Ill., 60. The smallest values were: Tatoosh Island, 18; Seattle, 20; Point Reyes Light, 22; Pysht, Astoria, and Key West, 24; Port Angeles and Woods Hole, 25; Fort Canby, Block Island, and Nantucket, 26.

Accumulated monthly departures from normal temperatures from January 1 to the end of the current month are given in the second column of the following table, and the average departures are given in the third column for comparison with the departures of current conditions of vegetation from the normal condition.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Total.	Average.		Total.	Average.
New England	+ 1.6	+ 0.8	Middle Atlantic.....	- 1.7	- 0.8
West Gulf	+ 1.6	+ 0.8	South Atlantic.....	- 2.8	- 1.4
Lower Lake	+ 0.5	+ 0.2	Florida Peninsula.....	- 0.5	- 0.2
Upper Lake	+ 6.7	+ 3.4	East Gulf.....	- 3.8	- 1.6
North Dakota.....	+ 2.8	+ 1.4	Ohio Valley and Tenn.....	- 0.9	- 0.4
Upper Mississippi Valley..	+ 3.8	+ 1.9	Southern Plateau.....	- 1.3	- 0.6
Missouri Valley.....	+ 7.7	+ 3.8	Middle Plateau.....	- 0.3	- 0.2
Northern Slope.....	+ 4.4	+ 2.2	Middle Pacific.....	- 0.5	- 0.2
Middle Slope.....	+ 2.8	+ 1.4			
Southern Slope.....	+ 0.4	+ 0.2			
Northern Plateau.....	+ 9.6	+ 4.8			
North Pacific.....	+ 3.0	+ 1.5			
South Pacific.....	+ 0.4	+ 0.2			

MOISTURE.

The *quantity of moisture* in the atmosphere at any time may be expressed by the weight of the vapor coexisting with the air contained in a cubic foot of space, or by the tension or pressure of the vapor, or by the temperature of the dew-point. The mean dew-point for each station of the Weather Bureau, as deduced from observations made at 8 a. m. and 8 p. m., daily, is given in Table I.

The *rate of evaporation* from a special surface of water on muslin at any moment determines the temperature of the wet-bulb thermometer. The mean wet-bulb temperature is now published in Table I; it is always intermediate, and generally about half way between the temperature of the air and of the dew-point. The quantity of water evaporated from the muslin surface may be considered as depending essentially upon the wet-bulb temperature, the dew-point, and the wind.

The *relative humidity*, or the ratio between the moisture that is present in the air and the moisture that it would contain if saturated at its observed temperature is given in Table I as deduced from the 8 a. m. and 8 p. m. observations. The general average for a whole day or any other interval would properly be obtained from the data given by an evaporimeter, but may also be obtained, approximately, from frequent observations of the relative humidity.

PRECIPITATION.

[In inches and hundredths.]

The *distribution of precipitation* for the current month, as determined by reports from about 2,500 stations, is exhibited on Chart III. The numerical details are given in Tables I, II, and III. The total precipitation for the current month exceeded 10 inches on the immediate coast of northern Cali-

fornia, Washington, and Oregon, and was between 10 and 20 inches at high stations on the Sierra Nevada. An average of 3 inches fell over New England, and from 4 to 10 inches over the Middle and South Atlantic States. From 8 to 12 inches fell in western Florida and southern Louisiana, Mississippi, and Alabama. The larger for regular stations were: Astoria, 12.89; Eureka, 11.23; Tatoosh Island, 11.16; Pensacola, 10.26; Fort Canby, 10.24. Canada: St. Johns, N. F., 5.85.

Details as to *excessive precipitation* for February are given in Tables XI and XII.

The *years of greatest and least precipitation* for February are given in the REVIEW for February, 1890. The precipitation for the current month was the greatest on record at: Astoria, 12.89; Pensacola, 10.26; Columbia, S. C., 9.11; Augusta, 8.57; Lynchburg, 7.84; Kittyhawk, 7.72; Parkersburg, 7.04; Tampa, 5.40; Jupiter, 5.14; Carson City, 4.30; Salt Lake City, 3.87; Fresno, 2.65; Dodge City, 2.38; Pueblo, 1.47; Williston, 1.10. It was the least on record at: Abilene, 0.02; Corpus Christi, 0.06; San Antonio, 0.15; Palestine, 0.29.

The *diurnal variation*, as shown by tables of hourly means of the total precipitation, deduced from self-registering gauges kept at the regular stations of the Weather Bureau, is not now tabulated.

The *current departures* from the normal precipitation are given in Table I, which shows that precipitation was in excess throughout the South Atlantic and east Gulf States, as well as, to a less extent, over the Rocky Mountain Plateau region. It was decidedly in excess on the Pacific Coast. It was deficient in the Mississippi and lower Missouri valleys and the Lake Region. The large excesses were: Pensacola, 6.4; Savannah, 5.8; Astoria, 5.2; Eureka, 5.1; Columbia, S. C., 4.9; in Canada, Port Stanley, 0.3; Swift Current and Qu'Appelle, 0.1. The large deficits were: Shreveport, 3.7; Little Rock, 3.6; Fort Smith, 3.2; in Canada, Yarmouth, 3.5; Charlottetown, 2.1; Quebec, 1.4.

The *average departure* for each district is given in Table I. By dividing each current precipitation by its respective normal the following corresponding percentages are obtained (precipitation is in excess when the percentage of the normal exceeds 100):

Above the normal: Middle Atlantic, 121; south Atlantic, 188; Florida Peninsula, 163; east Gulf, 127; Ohio Valley and Tennessee, 114; North Dakota, 215; northern Slope, 138; middle Slope, 162; middle Plateau, 240; northern Plateau, 134; north Pacific, 122; middle Pacific, 151; south Pacific, 169.

Below the normal: New England, 64; west Gulf, 22; lower Lake, 60; upper Lake, 80; upper Mississippi, 84; Missouri Valley, 86; southern Slope, 25; southern Plateau, 67.

The *total accumulated monthly departures* from January 1 to the end of the current month are given in the second column of the following table: The third column gives the percentage of the current accumulated precipitation relative to its normal value.

Districts.	Accumulated departures.	Accumulated precipitation.	Districts.	Accumulated departures.	Accumulated precipitation.
South Atlantic.....	Inches. 1.00	Perct. 113	New England	Inches. 1.70	Perct. 78
Florida Peninsula	+ 0.70	110	Middle Atlantic.....	- 1.00	86
North Dakota.....	+ 1.00	172	East Gulf.....	- 0.60	94
Upper Mississippi Valley..	+ 1.50	142	West Gulf	- 1.80	77
Missouri Valley.....	+ 1.50	200	Ohio Valley and Tenn.....	- 0.90	89
Middle Slope.....	+ 0.60	136	Lower Lake.....	- 1.10	80
Southern Plateau.....	+ 1.30	213	Upper Lake.....	- 1.10	82
Middle Plateau.....	+ 1.30	140	Northern Plateau.....	- 0.40	90
South Pacific.....	+ 2.30	154	North Pacific.....	- 0.70	96
Northern Slope.....	0.00	100	Middle Pacific.....	- 0.50	95
Abilene (southern Slope) ..	0.00	100			